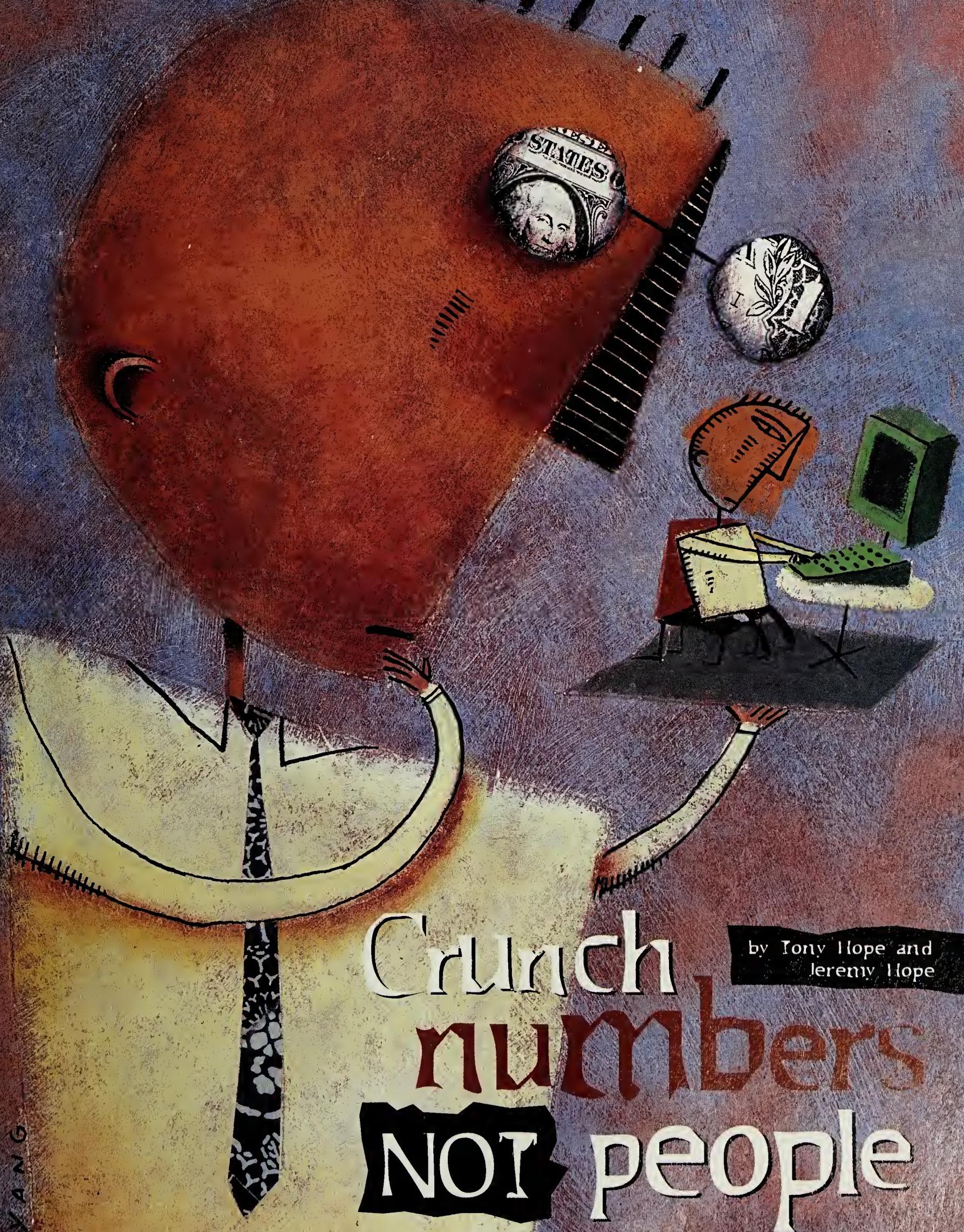


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COMPUTERWORLD

Leadership Series:



Crunch
numbers
NOT people

by Tony Hope and
Jeremy Hope

IS executives can cut costs without layoffs, if they think in terms of processes and activities

by Tony Hope and
Jeremy Hope

rather than
departments and
salaries.

Every IS manager is under pressure to reduce costs. In the IS department, cost reductions tend to fall on people, because people represent the lion's share of cost budgets.

Fewer and fewer analysts, programmers and support personnel are left to cope with the same volume of work. The results are familiar: declining morale, lower quality work and dissatisfied customers, both internal and external.

Part of the problem is that accountants measure costs in terms of salaries, benefits and overhead, rather than in terms of the work people do. We suggest that by looking at costs through a different lens — the work process — IS managers and their accounting colleagues will be in a much better position to reduce costs without

placing themselves under the constant pressure of staff reductions. If managers cut the workload instead of the workforce, they can lower costs and improve efficiency.

The Cost Budgeting Mentality

Let's start by looking at how the traditional cost-management system works.

Suppose you are the manager of an IS department that serves a range of business units. You are about to submit next year's budget for the system development department. Cash is tight, and you have been told to reduce the coming year's costs by 10%. Your accountant reckons that six jobs will have to go,

A Line Item Budget View

	Last year	New budget
Salaries and benefits (60 staff)	\$3,200,000	\$3,300,000
Proposed staff cuts (6 staff)	\$350,000	—
Traveling	\$900,000	\$800,000
Department expenses	\$1,050,000	\$900,000
Telecommunications costs	\$500,000	\$400,000
Total costs	\$6,000,000	\$5,400,000

but you fail to see how next year's planned work program can be maintained without these people. Last year's expenditures and next year's budget are presented for your approval (see "A Line Item Budget View," above).

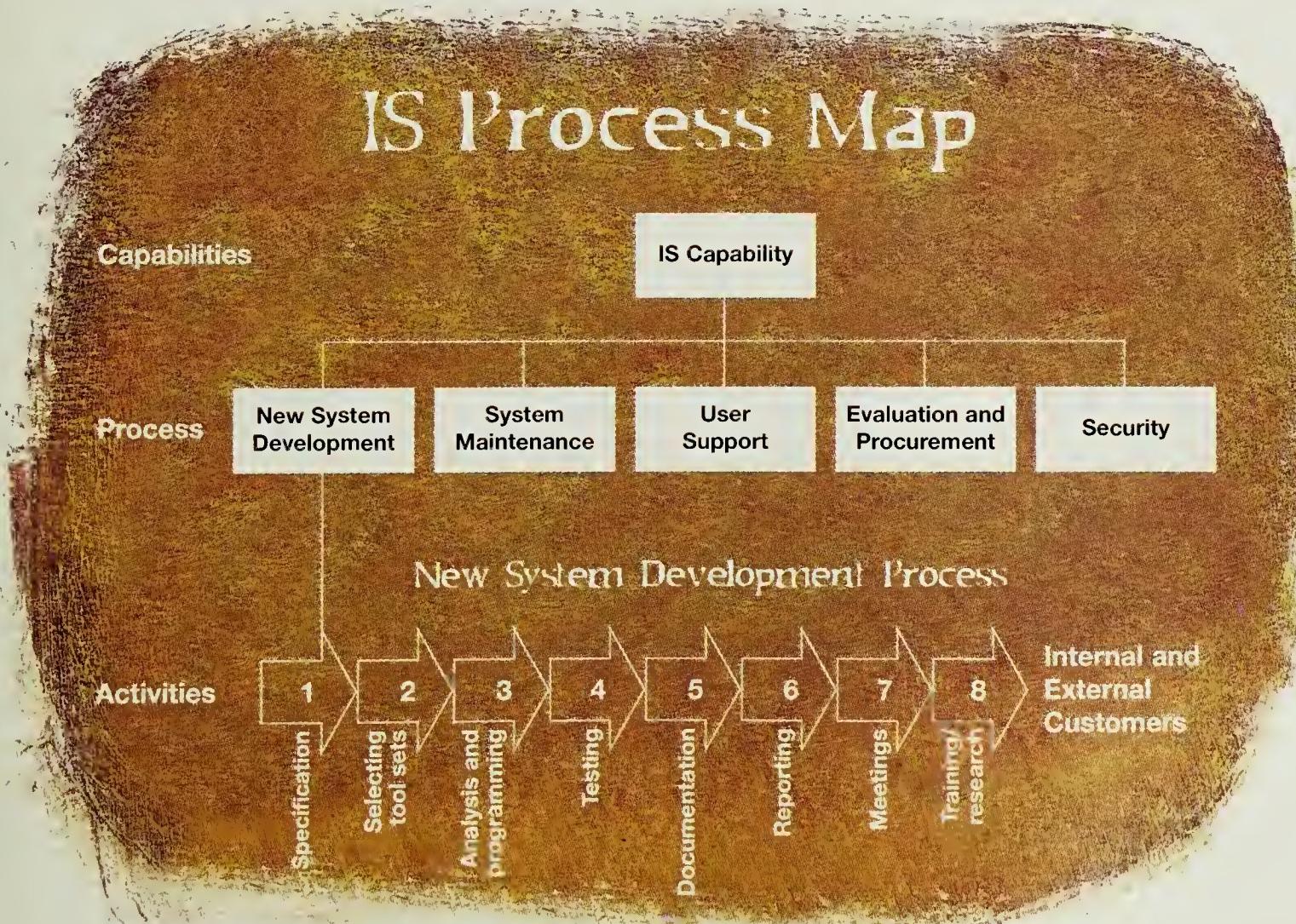
Your inclination is to accept the inevitable and cut the six jobs. After all, the only apparent alternatives are to cut salaries and upset all of the staff, or to cut certain discretionary

expenses, which would have only a limited effect.

Before making the final decision, however, you ask a consultant for a different presentation of the department's costs.

In his presentation, the consultant first outlines a "process" view of the department's work (see "IS Process Map," below). He shows the IS capability and its various processes, and he reveals that the processes can be subdivided into "activities." A

IS Process Map



*Will the warranty expire
on the truck ride over?*

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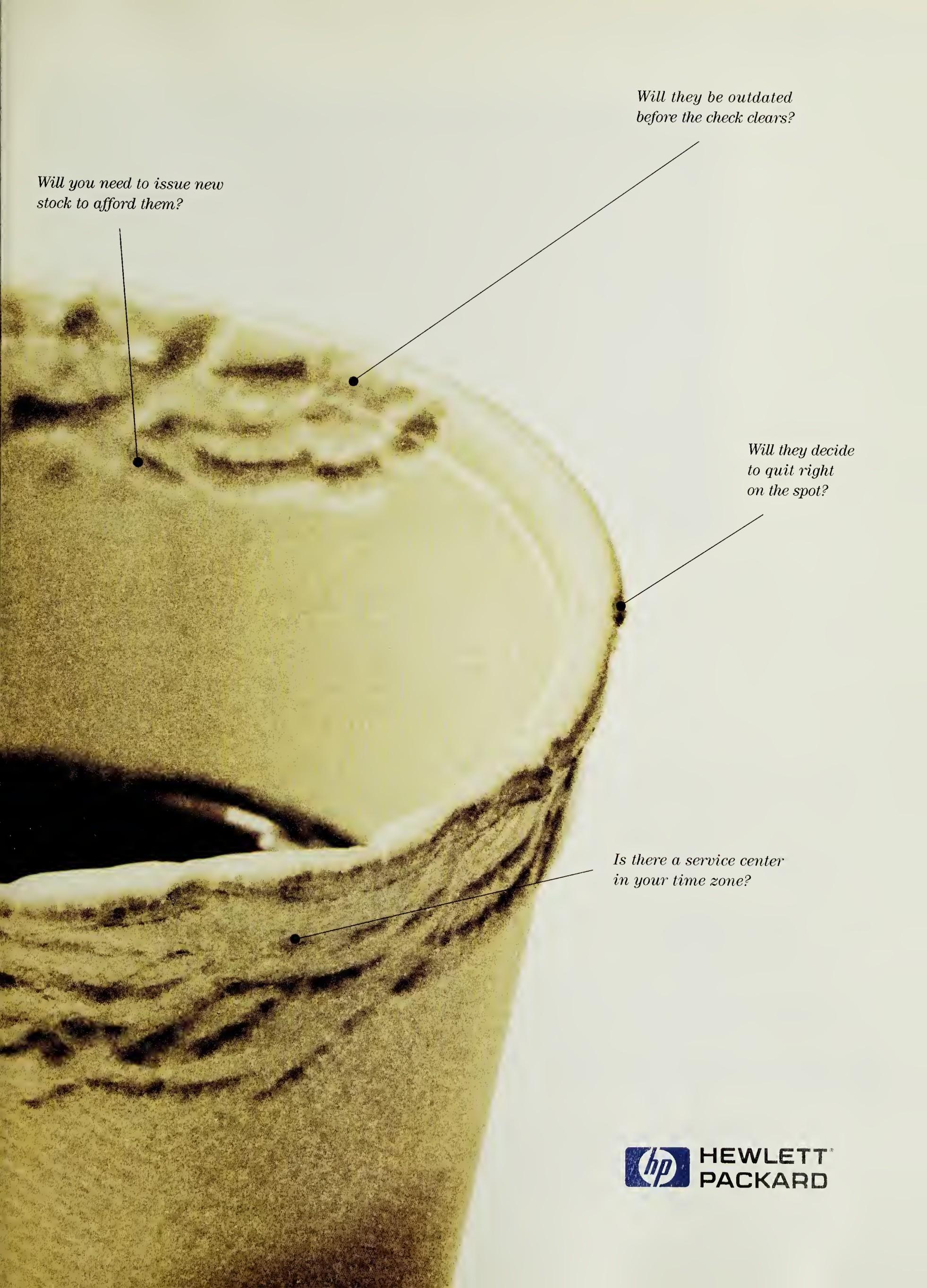


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*Will they be outdated
before the check clears?*

*Will you need to issue new
stock to afford them?*

*Will they decide
to quit right
on the spot?*

*Is there a service center
in your time zone?*

A Process View

Activities	Total Costs	Value Adding	Non-Value Adding
1. Specification	\$400,000	\$400,000	
2. Selecting tool sets	\$200,000	\$200,000	
3. Analysis and programming	\$2.8M	\$1.8M	\$1M
4. Testing	\$1M	\$600,000	\$400,000
5. Documentation	\$300,000	\$300,000	
6. Reporting	\$100,000	\$100,000	
7. Meetings	\$800,000	\$200,000	\$600,000
8. Training/research	\$400,000	\$400,000	
Totals	\$6M	\$4M	\$2M

process, he explains, is a number of sequential work activities with a beginning, an end and clearly identified inputs and outputs. Activities are identifiable and measurable pieces of work that constitute the process.

In the case of "new system development," the consultant breaks the process down into eight activities: specification, selecting tool sets, analysis and programming, testing, documentation, reporting, meetings and training/research. He then presents the revised costs of each of the activities, separating out value-adding and non-value-adding costs (see "A Process View," above).

Naturally, you ask how he came up with these numbers.

First, the consultant says, he had to explain to employees that the purpose of the review was to improve productivity, *not* to cut jobs. This enabled him to gain the trust and cooperation that is essential if em-

ployees are to provide a log of their non-value-adding time. To do this, each person first must understand which activities add value, so they can tell (by exception) when time is spent on non-value-adding work.

Breaking Down the Workload

The consultant then offers the following example: If the activities of a programmer (let's call her Sally) include programming, reporting and attending meetings, but she finds she spends some of her time on other non-related work, or on corrections and reworking, she then knows that such work is non-value-adding and that this time needs to be recorded as such.

This time can then be "costed" by first applying costs to

each activity, and then extracting the proportion of time and, ultimately, money spent on non-value-adding work.

Here's how it works: Let's say Sally's standard time is set at 80% programming, 10% reporting and 10% meetings, and her total costs, including her salary, travel and share of departmental costs, amount to \$6,000 a month. Sally finds, however, that 40% of her programming time has been spent on non-value-adding activities. We can then calculate this time to be worth \$1,920 a month ($\$6,000 \times 80\% \times 40\%$).

The consultant then returns to his analysis of your processes and costs. The revised analysis, he says, shows that the costs of activities that add value for the customer amount to only two-thirds of last year's total. One-third of the costs were created by work that should not have been necessary in the first place.

A more detailed investigation of the numbers shows that

the analysts, programmers and testing personnel were spending much of their time supporting the needs of departmental users and salespeople throughout the company. This time went unrecorded and unrecognized in the cost budget. User problems were often insignificant, and most could be overcome with more user training.

Moreover, these departmental users had an external support group, but often chose to use in-house analysts and programmers, who were more easily accessible and whose time didn't add to their own departmental costs. Analysts and programmers were also frequently disrupted by salespeople, who wanted help with demonstrations.

All of this may be valuable work, but it is not what these highly skilled technicians are paid to do. Moreover, staff members were frequently called to headquarters for budget review and other senseless meet-

ings, which added further unnecessary costs and detracted from their work.

By eliminating these costs, or at least charging them to the respective departments, a better picture of IS spending emerges. The six threatened jobs can likely be saved.

Budget reviews should be a time for strategic questions, such as "Are we doing the right work?" and "How can it be improved?" Instead, most dissolve into petty negotiations about increases or decreases in accounting costs. What a wasted opportunity!

Deriving the Real Numbers

Studies have repeatedly shown that between 20% and 50% of costs add no value for the cus-

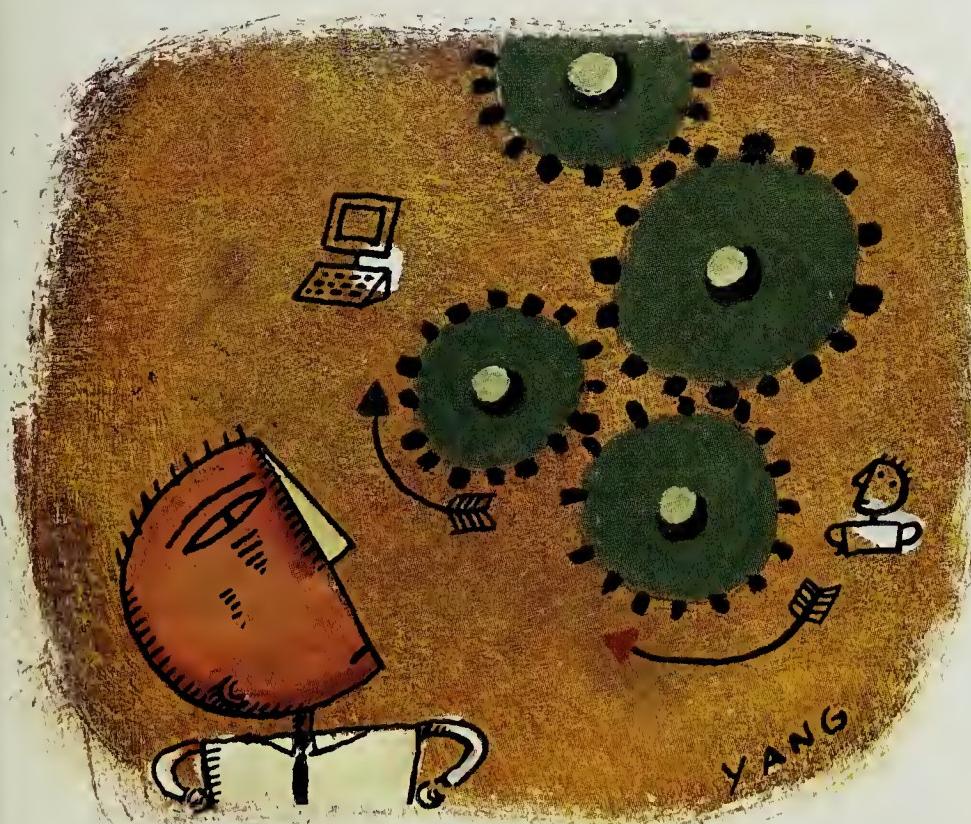
tomer. At one sales division of a major computer manufacturer in Britain, for example, a six-month study showed that 35% of all costs were wasted.

The study found that 76% of deliveries were incorrect, 53% of configurations were wrong the first time, and 45% of orders needed processing more than once. The exercise paid for itself handsomely when the company "recovered" most of these wasted costs within a year or so.

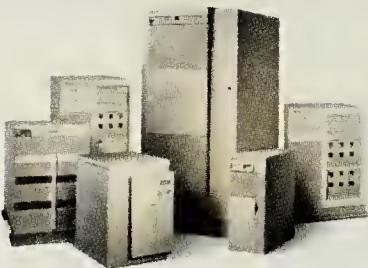
The picture in an IS department is likely to be similar to this company's experience. But how can we derive these types of numbers if the accounting numbers don't help?

The first step is to think in terms of processes and activities rather than departments and salaries.

The process perspective, a centerpiece of the total quality management and re-engineering movements, offers managers

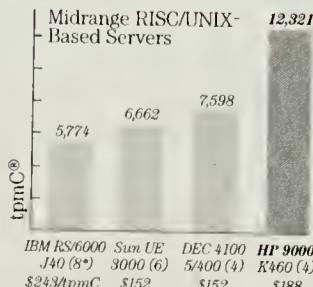


By eliminating costs that don't add value, a better picture of IS spending emerges.



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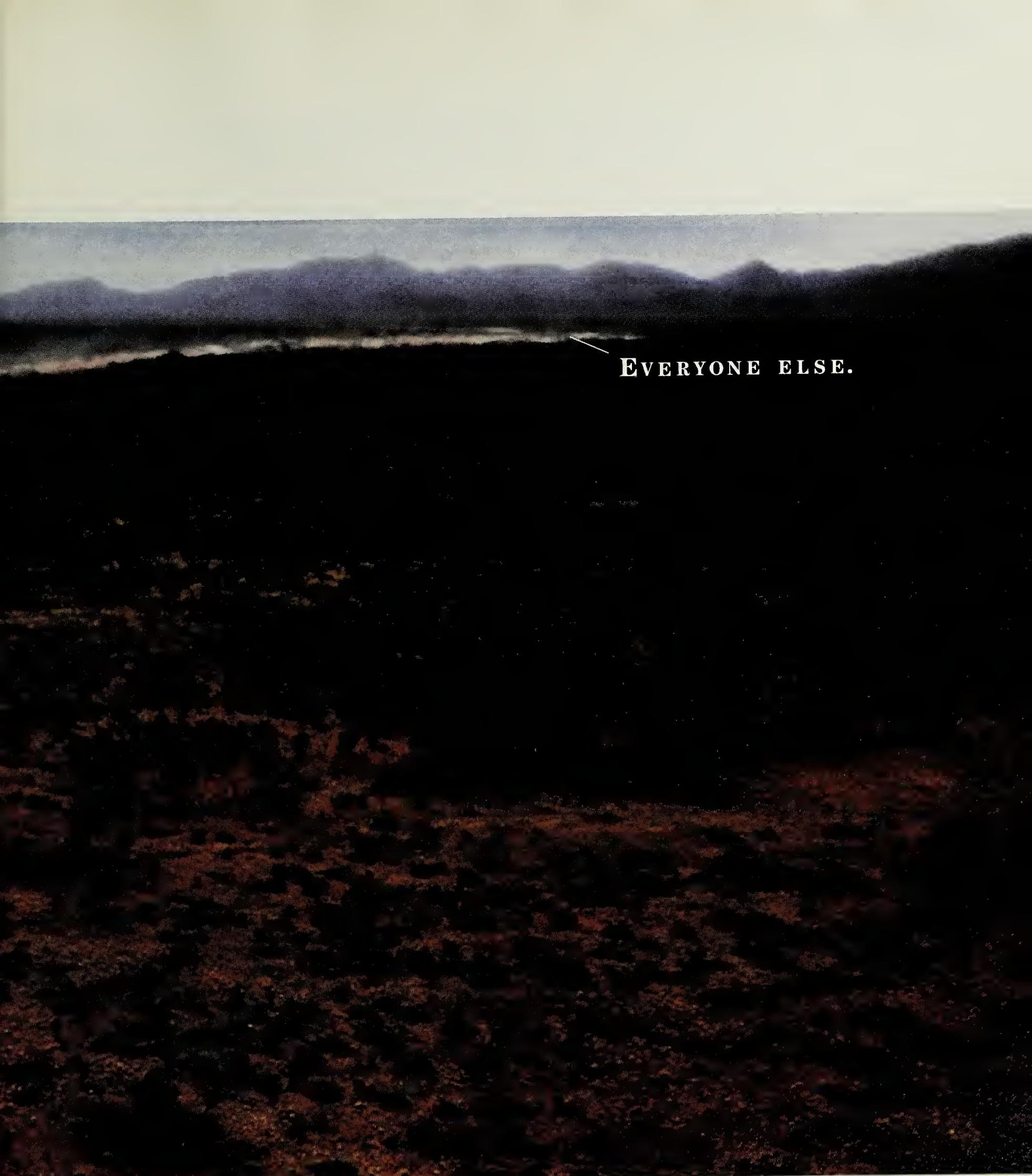
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a clearer view of what work should be done, and, when new technology is applied, how such work can be done faster and with greater quality and efficiency.

When a life insurance company spent \$2 million to computerize its processing and claims operations in the early 1980s, it found that it got almost nothing for its expenditure: It still required 27 working days and 32 clerks in three departments to handle a policy conversion.

Only after the company changed how it organized and managed its workforce — relying on semiautonomous process teams of five to seven people, upgrading training and skills, and paying more for the more responsible and more skilled workers — did case-handling time drop and service complaints virtually disappear.

Processes have owners or leaders, and they have customers, either internal or external. Thus, for each activity within the process, we can ask: "Does it add value for the customer?" and "How well is it performed?" If the answer to either of these questions is less than 100%, then excess costs are being incurred.

The language of processes and activities will be familiar to anyone who has an understanding of activity-based costing (ABC), but that's as far as it goes. ABC is typically used as a better method of attributing *existing costs* to products and customers. Our interest is in eliminating *unnecessary costs* and thus improving the quality and speed of process work.

By continuously improving processes, we will begin to see

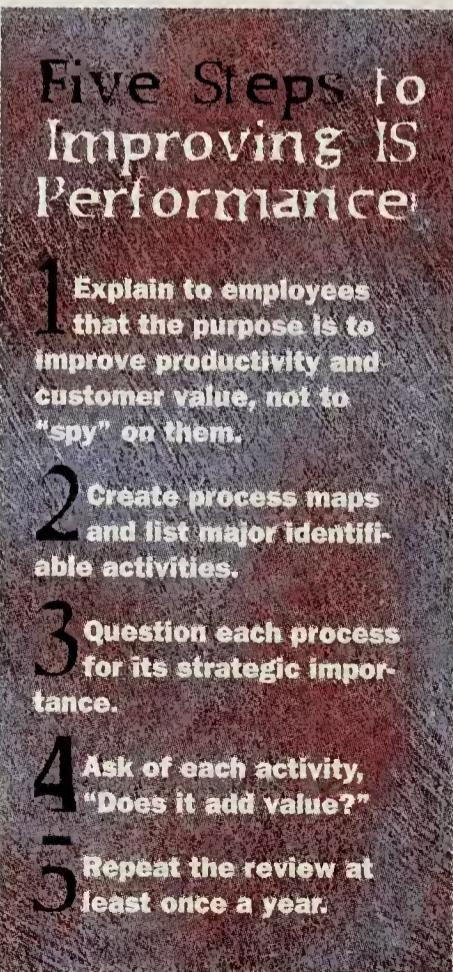
significant productivity gains, particularly from highly qualified specialists.

Management guru Peter Drucker had the right idea in 1963, when he said, "There is surely nothing so useless as doing with great efficiency what should not be done at all."

Some Practical Steps

So what practical steps can we take to weed out this unnecessary and costly work?

We can make considerable progress by undertaking some basic process and activity analysis and then asking a series of searching questions. The 80/20 rule definitely applies: 20% of processes are likely to deliver 80% of the value, and 20% of activities will probably cause 80% of the costs and add little value.



Here are five steps to help IS managers improve performance:

Step 1

Sell your program. Explain to employees that the purpose of the exercise is to eliminate unnecessary work, improve the productivity of their work and deliver more value to customers, and thus *strengthen* their jobs, rather than allowing it to appear as some form of work study that will lead to new bureaucratic controls.

Step 2

Review the IS function and decide on its constituent processes. Include all the people and support costs that comprise the process from beginning to end. Think of each process as a self-contained business (this may involve people not previously thought of as being in the IS department), and make a flow chart with each step of the work, thus arriving at a list of activities.

Step 3

Question each process. Take, for example, "user support" or "system maintenance" and ask if it is essential for meeting the firm's strategic targets. Can the process be done more cheaply and efficiently by outsourcing it?

Step 4

Question those activities that fall within the most strategic processes, then choose those activities with the highest proportion of cost. Ask employees to record their time for a period of, say, three months. Question again the relevance of activities. Are they necessary? What would happen to the performance of the process if they didn't exist? Remember, the fewer the steps in the process, the more efficient it is. Are employees distracted by

The objective is to eradicate years of clutter from work processes.

helping other people solve their problems (as in the earlier example)? While we are not suggesting they should never help others, you may well find that the real scale of the problem is far greater than you imagined.

Step 5

Implement your proposals, and follow up. Repeat this process every 12 months, until unnecessary work and poor quality is eliminated from the system. The cost savings will be dramatic, and your employees will be happier. Once you have done this, call a meeting of departmental managers and pass the message on.

By adopting this approach, one division of a multinational computer company discovered that its non-value-adding costs

amounted to a staggering 40% of total costs, revealing a savings opportunity that dramatically affected its profitability.

It is important, however, to approach such a review in the right way. The objective is not work study or time-and-motion analysis, but the eradication of years of clutter and debris from work processes, resulting in more satisfied customers and more secure, value-adding jobs.

Significant progress has been made in recent years in the battle against non-value-adding work. For example, in the computer and insurance companies previously mentioned, noticeable changes were seen in managers' and workers' attitudes. They started to think and work as a team, with the common purpose of satisfying customer

needs. The change did not occur through attending seminars or heeding management exhortations, but through trust and understanding reinforced by the new information in hand.

By getting people to work together and sharing information, management at these companies began to cut the workload rather than the workforce, and, thus, make the sort of fundamental changes that would scarcely have been possible with the previous cost-cutting mentality. ♦

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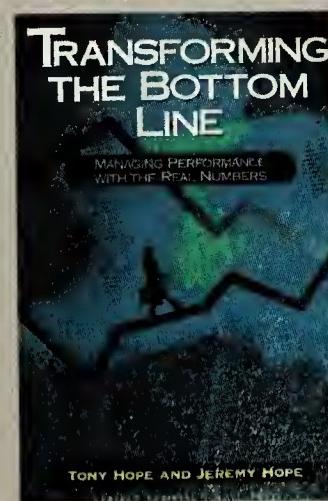
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About the authors:

Tony Hope and Jeremy Hope are co-authors of *Transforming the Bottom Line: Managing Performance with the Real Numbers*, recently published by the Harvard Business School Press (Cambridge, Mass., \$27.50, 256 pages). The book includes a more detailed dis-



cussion of how managers can analyze processes and generate data on value-added and non-value-added work. Tony Hope is a visiting professor at INSEAD, a leading business school in Fontainebleau, France; Jeremy Hope is a consultant in Baildon, West Yorkshire, England. Both brothers are chartered accountants and consultants. They can be reached at lh23@dial.pipex.com.



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